



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,969	10/24/2003	Douglas Charles Myers	10541-1898	1813
29074	7590	06/28/2006	EXAMINER	
VISTEON C/O BRINKS HOFER GILSON & LIONE PO BOX 10395 CHICAGO, IL 60610			JOYCE, WILLIAM C	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/692,969	Applicant(s) MYERS ET AL.	
	Examiner William C. Joyce	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

This is the First Office Action in response to the above identified patent application filed on October 24, 2003.

Claim Rejections - 35 USC § 112

1 The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2 Claims 2-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 2, it is understood that an "inboard inner race and an outboard inner race [are] supported on said bearing shaft." Referring to claim 3, which depends from claim 2, it is understood that "said outboard inner race is integrally formed within the bearing shaft." The embodiment of Figure 1 illustrates the outboard inner race being integrally formed within the bearing shaft, and the embodiment of Figure 13 shows the outboard inner race being supported on said bearing shaft. Accordingly, it appears claim 3 fails to incorporate all the limitations of claim 2. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers. For the purpose of examination, claim 2 has been interpreted as a bearing that is either integrally formed with the bearing shaft or that is separately formed but supported on the bearing shaft. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4 Claims 1-7 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Averill et al. (USP 6,557,660)

Averill et al. illustrates in Figure 4 a wheel end assembly comprising: a bearing shaft 46 having an inboard end and an outboard end; a wheel hub 56 mounted onto said outboard end of said bearing shaft; a detachable outboard joint 52 mounted onto said inboard end of said bearing shaft; a wheel bearing 66 mounted onto said bearing shaft between said inboard end and said outboard end; said inboard end of said bearing shaft including a flange portion 100, said flange portion providing a support to keep said wheel bearing positioned onto said bearing shaft and to induce a pre-load into said wheel bearing such that said pre-load is maintained on said wheel bearing when said outboard joint is removed from said wheel end assembly; and a support hub 106 positioned between and interconnecting said detachable outboard joint and said bearing shaft, said support hub having a first outwardly extending spline section

engaging said bearing shaft and a second outwardly extending spline section engaging the joint member.

5 Claims 1 and 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Boulton et al. (USP 6,354,952).

Boulton et al. teaches a wheel end assembly comprising: a bearing shaft 25 having an inboard end and an outboard end; a wheel hub 26 mounted onto said outboard end of said bearing shaft; a detachable outboard joint 36 mounted onto said inboard end of said bearing shaft; a wheel bearing 30 mounted onto said bearing shaft between said inboard end and said outboard end; said inboard end of said bearing shaft including a flange portion 33, said flange portion providing a support to keep said wheel bearing positioned onto said bearing shaft and to induce a pre-load into said wheel bearing such that said pre-load is maintained on said wheel bearing when said outboard joint is removed from said wheel end assembly; and a support hub 32 positioned between and interconnecting said detachable outboard joint and said bearing shaft, said support hub having a shaft portion engaging said bearing shaft and an engagement portion extending axially from said shaft portion.

6 Claims 1, and 5-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Uchman (USP 6,648,518).

Uchman teaches a wheel end assembly comprising: a bearing shaft 12 having an inboard end and an outboard end; a wheel hub 13 mounted onto said outboard end of

Art Unit: 3682

said bearing shaft; a detachable outboard joint 10 mounted onto said inboard end of said bearing shaft; a wheel bearing 19,21 mounted onto said bearing shaft between said inboard end and said outboard end; said inboard end of said bearing shaft including a flange portion 26, said flange portion providing a support to keep said wheel bearing positioned onto said bearing shaft and to induce a pre-load into said wheel bearing such that said pre-load is maintained on said wheel bearing when said outboard joint is removed from said wheel end assembly; and a support hub 28 positioned between and interconnecting said detachable outboard joint and said bearing shaft, said support hub having a shaft portion engaging said bearing shaft and an engagement portion extending axially from said shaft portion.

7 Claims 1, 2, and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Webb et al. (USPUB. 2003/0063827).

Webb et al. illustrates in Figure 5 a wheel end assembly comprising: a bearing shaft 12 having an inboard end and an outboard end; a wheel hub mounted onto said outboard end of said bearing shaft; a detachable outboard joint k mounted onto said inboard end of said bearing shaft; a wheel bearing 28 mounted onto said bearing shaft between said inboard end and said outboard end; said inboard end of said bearing shaft including a flange portion 22, said flange portion providing a support to keep said wheel bearing positioned onto said bearing shaft and to induce a pre-load into said wheel bearing such that said pre-load is maintained on said wheel bearing when said outboard joint is removed from said wheel end assembly; and a support hub 116

Art Unit: 3682

positioned between and interconnecting said detachable outboard joint and said bearing shaft, said support hub having a shaft portion engaging said bearing shaft and an engagement portion extending axially from said shaft portion.

Claim Rejections - 35 USC § 103

8 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9 Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Webb et al. as applied to claim 2 above, and further in view of Boulton et al. (USP 6,354,952).

Webb et al. does not teach the outboard inner bearing race being integrally formed with the bearing shaft. The prior art to Boulton et al. teaches an outboard inner bearing race being integrally formed with a bearing shaft. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bearing arrangement of Webb et al. with an outboard inner bearing race integrally formed with a bearing shaft, as taught by Boulton et al., motivation being to reduce the number of components of the device.

Allowable Subject Matter

10 Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (571) 272-7107. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William C. Joyce 6/24/06